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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/913,407	11/01/2001	Jan Pieter De Baat Doelman	BO 42354	9684

466 7590 02/04/2003

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EXAMINER

DRODGE, JOSEPH W

ART UNIT PAPER NUMBER

1723

DATE MAILED: 02/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/913,407

Applicant(s)
DE BAAT DOELMAN

Examiner
JOSEPH DRODGE

Art Unit
1723



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 14, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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4. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crewson et al patent 6,063,267 in view of the Abstract to Japanese publication 1,182,543 and Van Heesch et al patent 6,033,565.

Crewson et al disclose generation of electromagnetic fields by field generating coils wrapped around a pipe and generation of alternating electromagnetic field forces around such pipes (see especially column 1, line 66 through column 2, line 16).

The claims differ in requiring a sensor to sense a parameter related to system function , such sensor comprising a field measuring coil mounted near the field generating coil and associated feedback circuit. Such sensor and circuit is taught by '543 comprising component 3, etc. At the time the present invention was made, it would have been obvious to one of ordinary skill in this art to have augmented the Crewson et al system by providing such sensor and feedback circuit, as taught by '543, so as to maintain optimum current and power of the generated electromagnetic field.

Van Heesch et al teach an electrical field measuring means in the form of a coil wrapped around a pipe which contains a fluid being treated by electrical field generating means (see measuring coil 56 and column 9, lines 1-17). At the time the present invention was made, it would have been obvious to one of ordinary skill in this art to have further modified the system of Crewson et al as modified in view of '543, by providing a measuring coil, as suggested by Van Heesch et al , so as to monitor the generated field in such a way as to minimize influences of background electrical and electromagnetic interferences.

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Regarding claim 2, see Crewson et al figure 3 and column 3, lines 19-53 depicting series arranged coils around a pipe.

Regarding claim 4, see Van Heesch et al in column 4, lines 58-65.

5. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crewson et al in view of '543 and Van Heesch et al as applied to claims 1 and 2 above, and further in view of Schulte of record.

Claims 3 and 5 further differ in requiring the electronic circuitry to comprise an amplifier. Such amplifier and its use is described in column 3, lines 5-42 of Schulte. At the time the present invention was made, it would have been obvious to one of ordinary skill in this art to have further modified the Crewson et al system by providing an amplifier as taught by Schulte, so as to allow control of the generated field to have a continuously varying output for more effective treatment of the liquid within the pipe being treated.

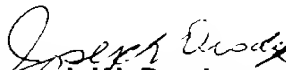
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stefanini patent 5,514,283; Pandolofa patent 5,702,600 and De Baat Doelman patent 5,074,993 are further representative of the prior art concerning apparatus for generating electromagnetic fields around pipe containing flowing fluids being treated.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph W. Drodge whose telephone number is (703) 308-0403. The examiner can normally be reached on Monday-Friday from approximately 8:30 AM - 4:45 PM.

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The fax phone number for this Group is (703) 872-9310 or (703) 872-9311 for after final submissions. When filing a FAX in Tech Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.


Joseph W. Drodge
Primary Examiner
Art Unit 1723

JWD
January 27, 2003